UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,469	08/23/2006	Helmut Britsch	SMB-PT181(PC 05 022 M US)	8957

3624 7590 01/22/2008

VOLPE AND KOENIG, P.C.
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER	
MOFFAT, JONATHAN	

ART UNIT	PAPER NUMBER
2863	

MAIL DATE	DELIVERY MODE
01/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,469	BRITSCH ET AL.	
	Examiner	Art Unit	
	Jonathan Moffat	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 August 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the optoelectronic sensor and the evaluation unit of claim 1 must be shown or the feature(s) canceled from the claim(s). Further, a "wedge" type reference mark should be illustrated in contrast to a "block" type reference mark. Additionally, for claim 5, multiple detectors must be shown. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-27 are objected to because of the following informalities:

In each claim minor amendments are necessitated by the prevalence of small grammatical errors. As an example, claim 1 should begin "A device for..." instead of simply "Device for...". Each claim dependent therefrom would then begin with "The device of claim 1...". Further in claim 1, "the sensor is designed for" should be "wherein said sensor is designed for".

Claim 6 is objected to as unclear since the examiner cannot determine what reference fields "can be preset". The examiner assumes that the word "preset" is likely intended to mean "present" but even assuming this the claim is unclear. Further, on line 4 of the claim, the word "wherein" should likely be added between the words "and" and "the evaluation".

Claims 12 and 23 are additionally problematic as they do not appear to the examiner to present any limitations. The recitation of patterns as being one of "regular, irregular, symmetric, and/or asymmetric" does not appear to the examiner to eliminate any possibilities. These claims therefore add no limitation and are improper.

With respect to claim 13, this claim states that "it" has at least one additional optoelectronic sensor without adequate recitation of what "it" is. Further, the claim language leaves ambiguous whether this "additional optoelectronic sensor" or the "at least one identification mark" is "arranged on the printing plate" and "provided in plain text or coded form".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1.

Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, As mentioned in brief above, one of ordinary skill in the art would not able to determine the scope of this claim. The language "or that can be present" is neither clear nor distinct. The examiner's first impression was that the device is set to notice the lack of a certain reference field (i.e. one is missing that was expected to be present). However, the examiner is unsure of how this is related to measured values of reference marks and doubts that this interpretation is in keeping with the language of the claim.

Claims 7-8 are dependent upon claim 6 and thus contain all limitations and above issues.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 10, 12, 14-15, 17 and 19-27 are rejected under 35 U.S.C. 102(b) as being anticipated by De Ble (EP 0825022A1).

With respect to claim 1, De Ble discloses an apparatus comprising:

1) An optoelectronic sensor (Fig 1 item 3) for detecting a reference mark (wedge or block), which is arranged on the printing plate within or outside of a printing area and which has different reference fields (Figs 2 and 9).

2) An evaluation device for evaluating measured values detected by the sensor (Fig 1 item 2 and page 6 line 55- page 7 line 4).

3) Wherein, the sensor is designed for detecting at least two reference marks arranged on the printing plate, wherein the reference marks each have a reference field combination made from at least one tone value reference field and at least one structured reference field, or at least one of the reference marks has at least one tone value reference field and at least an other one of the reference marks has at least one structured reference field (Figs 2 and 9).

With respect to claim 2, De Ble discloses that the two or more reference marks are identical in terms of the reference fields (Fig 9 items 20).

With respect to claim 3, De Ble discloses that the two or more reference marks are different in terms of the reference fields (Fig 2).

With respect to claim 4, De Ble discloses that two of the reference marks are provided, which are spaced apart from each other in a direction of advance or processing of a printing plate processing device producing the plate imaging and are arranged on at least approximately diagonally opposite areas of the printing plate (Fig 9).

With respect to claim 10, De Ble discloses that the device is integrated into a printing plate processing device (Figs 1 and 9 and "Field of Invention").

With respect to claims 12 and 23, De Ble discloses a combination of structured reference fields with regular, irregular, symmetric, and/or asymmetric figure patterns (Fig 2).

With respect to claim 14, De Ble discloses a method comprising:

1) Optically detecting a reference mark on a printing plate (Fig 1 item 3) and comparing resulting measured values with desired values (Fig 1 items 2, 4 and 6 and page 6 line 55- page 7 line 4).

2) Wherein the measured values are detected from at least two of the reference marks (Fig 9 items 20) with at least one tone value field and at least one structured field (Fig 2) and absolute measured values of the reference marks are stored and compared with desired values stored in an evaluation device (Fig 1 item 4).

With respect to claim 15, De Ble discloses analyzing the measured values of several printing plates detected one after the other in a time-value profile (page 2 lines 36-46 and page 4 lines 3-7). Although such a graphical representation is not specifically disclosed, as this process is happening more than once in time-series a profile can be said to arise.

With respect to claim 17, De Ble discloses outputting the measured values and/or diagnosis data determined with reference to the measured values on an output unit (Fig 1 item 10).

With respect to claim 19, De Ble discloses an optoelectronic sensor (Fig 1 item3) for detecting a reference mark (wedge or block), which is arranged on the printing plate within or outside of a printing area and which has different reference fields (Fig 9), as well as an evaluation device (Fig 1 item 2) for evaluating measured values detected by the sensor (page 6 line 55 – page 7 line 5), the sensor is designed for detecting at least two reference marks arranged on the printing plate (Fig 9 items 20), wherein the reference marks each have a reference field combination made from at least one tone value reference field and at least one structured reference field, or at least one of the reference marks has at least one tone value reference field and at least an other one of the reference marks has at least one structured reference field (Fig 2).

With respect to claim 20, De Ble discloses an apparatus comprising:

1) Different reference fields for determining a quality of imaging of printing plates, including a reference field combination made from at least one tone value field and at least one structured field (Fig 2).

With respect to claim 21, De Ble discloses that edge regions of individual ones of the reference fields and/or transition regions of adjacent ones of the reference fields form additional auxiliary reference fields (Fig 2). Even though De Ble may not disclose a specific use for these transition regions, they are still present as illustrated by the similarity between De Ble Fig 2 and applicant's Fig 4.

With respect to claim 22, De Ble discloses multiple reference fields arranged as a matrix (Fig 2).

With respect to claim 24, De Ble discloses that the mark has a width of approximately 5 mm to 7 mm and a height of approximately 4 mm to 5 mm (page 7 lines 15-19). Here each field is, at minimum 2mm to a side. This makes possible and within the scope of De Ble a strip of the claimed size (a 2x3 matrix for instance would meet this limitation).

With respect to claim 25, De Ble discloses that the reference mark has an identification mark for unique identification of a corresponding printing plate or an identification mark is allocated to the reference mark (Fig 2 items 64-65).

With respect to claim 26, De Ble discloses that the identification mark is a plain text label or a coded label (Fig 2 items 64-65 and page 4 line 20).

With respect to claim 27, De Ble discloses an apparatus comprising:

1) A plate and imaging located thereon (Fig 9).

2) At least two reference marks arranged on the printing plate (Fig 9 items 20).

3) Wherein the reference marks each have a reference field combination made from at least one tone value reference field and at least one structured reference field, or at least one of the reference marks has at least one tone value reference field and at least an other one of the reference marks has at least one structured reference field (Fig 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.

Claims 5, 9, 11, 13, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Ble (EP 0825022A1) in view of Romano (EP 0864422A2).

Parent claims 1 and 14 are addressed as anticipated in the above rejection over De Ble.

With respect to claim 18, De Ble discloses edge areas of adjacent fields (Fig 2).

With respect to claim 5, De Ble fails to disclose that the sensor has a number of detectors corresponding to a number of the reference marks of the printing plate.

With respect to claim 9, De Ble fails to disclose that the evaluation device has a desired value memory for different printing technologies and that an input device is provided for selecting and setting desired values to be used by the evaluation device.

With respect to claim 11, De Ble fails to disclose that the evaluation device has a signal output connected to the printing plate processing device for stopping the printing plate processing device.

With respect to claim 13, De Ble fails to disclose at least one additional optoelectronic sensor for detecting at least one identification mark, which is arranged on the printing plate and which is provided in plain text or in coded form, the optoelectronic sensor or sensors are adapted for detecting at least one such identification mark.

With respect to claim 16, De Ble fails to disclose comparing the measured values or combinations of at least two measured values automatically with values from a diagnosis table for determining possible causes of poor quality in the plate imaging of the printing plate.

Romano teaches, with respect to claim 5, that the sensor has a number of detectors corresponding to a number of the reference marks of the printing plate (Figs 4 and 9 and column 16 lines 42-57).

Romano teaches, with respect to claim 13, at least one additional optoelectronic sensor for detecting at least one identification mark, which is arranged on the printing plate and which is provided in plain text or in coded form, the optoelectronic sensor or sensors are adapted for detecting at least one such identification mark (Figs 4 and 9 and column 16 lines 42-57).

It would have been obvious to one of ordinary skill in the art to modify the apparatus of De Ble by including two sensors, one for each control strip, as taught by Romano. From the configuration of the densitometer in figure 4 of Romano it is clear that, in order to monitor both control strips in figure 9, two would be needed. This modification (as opposed to moving a single sensor from one location to the other) makes the process faster and reduces the number of required moving parts.

Romano teaches, with respect to claim 9, that the evaluation device has a desired value memory for different printing technologies and that an input device is provided for selecting and setting desired values to be used by the evaluation device (column 5 lines 32-37 and 48-55 and column 15 lines 28-38 and column 17 lines 2-5).

It would have been obvious to one of ordinary skill in the art to modify the apparatus of De Ble by setting target values based upon the device and technology in question as taught by

Romano. It is well known in the art to set tolerances based upon prior knowledge of machine specifics which is essentially what this modification would comprise.

Romano teaches, with respect to claim 11, that the evaluation device has a signal output connected to the printing plate processing device for stopping the printing plate processing device (column 12 lines 54-57 and column 16 lines 26-32 and column 20 lines 49-57 and column 21 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify the apparatus of De Ble by adding feedback to the press mechanics as taught by Romano. This prevents 'bad' or non-compliant product from being printed before a calibration can be performed which reduces wasted materials, a stated goal of De Ble.

Romano teaches, with respect to claim 16, comparing the measured values or combinations of at least two measured values automatically with values from a diagnosis table for determining possible causes of poor quality in the plate imaging of the printing plate (Fig 10 and column 10 lines 40-49 and column 17 lines 10-50 and column 21 lines 14-28 and column 18 lines 40-51 and column 20 lines 31-43 and column 21 lines 32-34).

It would have been obvious to one of ordinary skill in the art to modify the method of De Ble by combining the results of at least two measurement values from a look up table and generating diagnosis of correction therefrom as taught by Romano. As shown in Romano, comparing to multiple LUT values will allow for an accurate correction of the imaging component values.

Romano teaches, with respect to claim 2, adjacent reference fields (Fig 7a) and the use of the edges of fields (Fig 5).

It would have been obvious to one of ordinary skill in the art that in De Ble the edge areas of adjacent reference fields are inherently used since the entire reference field is used as a whole. The edge (whether it is adjacent to the edge of another reference field or not) is merely part of the reference field and since both De Ble and Romano disclose using the entirety of the reference field for determining a quality of the plate imaging by the printing plates, this language is met by them and obvious to one of ordinary skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Moffat whose telephone number is (571) 272-2255. The examiner can normally be reached on Mon-Fri, from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Moffat whose telephone number is (571) 272-2255. The examiner can normally be reached on Mon-Fri, from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

1/4/08

JM/jam

John Barlow
Supervisory Patent Examiner
Technology Center 2800